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ABSTRACT

A conceptual model is presented for a state-wide needs assessment that will provide perspectives for charting future actions in teacher education in Georgia. Need was seen for data in four areas: the general economic picture and projections for the state; available pool of students for recruiting into teaching; possible changes in curriculum emphasis during the next decade; and future supply and demand for teachers. Within the framework of these areas, 19 questions were designed to determine the status of teacher education today as well as to provide information related to the number and characteristics of the teacher education student of tomorrow. Size and characteristics of teacher education programs were reviewed as were the characteristics and types of both the certificates issued in Georgia and the people applying for the certificates. Quality measures related to both program graduates and certificate recipients were also important aspects of the study. Available information on each of the 19 questions is reported. Conclusions drawn from the data are listed with citations of literature supporting them. Issues made evident by the assessment are analyzed and recommendations are made for future actions. (JD)

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# A Statewide Teacher Education Needs Assessment

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Paper for Presentation
at AERA, New Orleans
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## INTRODUCTION

Colleges and universities find themselves increasingly in circumstances which require careful, rational approaches to decisioning. The punishment for failure to do this is the misallocation of already-scarce resources. When times are good, when waiting lines of student applicants are long, when legislative committees are feeling the press of income from growing tax digests, mistakes don't appear so costly -- today's errors can be compensated for by tomorrow's growth. Most schools saw such days come and then disappear over the past couple of decades. We are left with the need for more studied approaches to the planning which precedes actual allocation decisions.

There are several very seductive alternatives to needs-assessment-driven planning. All have been tried by various institutions in the past and most are in use somewhere even today.

One popular alternative is a sort of reactionism -- waiting to make any decision until the direction has been made perfectly clear by others. Indeed, if one waits long enough, the decision choices most often are reduced to but one alternative. This is a very seductive possibility because it is self-fulfilling; saying that it isn't necessary to collect original data for planning and then waiting while choices disappear soon does, in fact, obviate the need for data because only one path eventually remains.

Another possible alternative to needs assessment is the simple application of other people's data to your local situation. This usually takes the form of attempting to apply national data to a single, local case. When the national data show that the employment demand for one kind of graduate is being dramatically reduced, the obvious choice is to cut back on that program at your institution -- even though the local demand might be growing. But, of course you

have no way of knowing this if you don't collect any original, local data. So, again, planning seems easy when based on a seductively simple ignorance.

A third example of a simple alternative to a careful, data-based approach to planning is the one-by-one response to separate questions. That is, taking each decision as separate and distinct by pretending that each has no connection to any other. It becomes an easy alternative because it requires no comprehensive perspective.

These three examples are difficult to avoid. They are easy; they require little effort or cost. And they do produce decisions -- many of which can be made to work.

To avoid these seductive alternatives and to substitute a careful assessment of needs requires a level of professional management which is, at one time, increasingly important and, yet, uncommon.

What appears necessary is some comprehensive, conceptual model which makes a rather thorough needs assessment about as easy to understand -- to design and interpret -- as one of its less rigorous alternatives. This paper presents, first, such a conceptual model and, then, a fairly detailed account of one example use of the model in the assessment of the teacher education needs for what might be called, in good research jargon, a "large, southeastern state which shall be anonymous but referred to simply as GA."

It is important to keep in mind that this is a conceptual model, not a theoretical one. It is designed to provide perspective, not to permit prediction about the interrelationships among its elements.

This Flow-Through Model, is based on several premises.

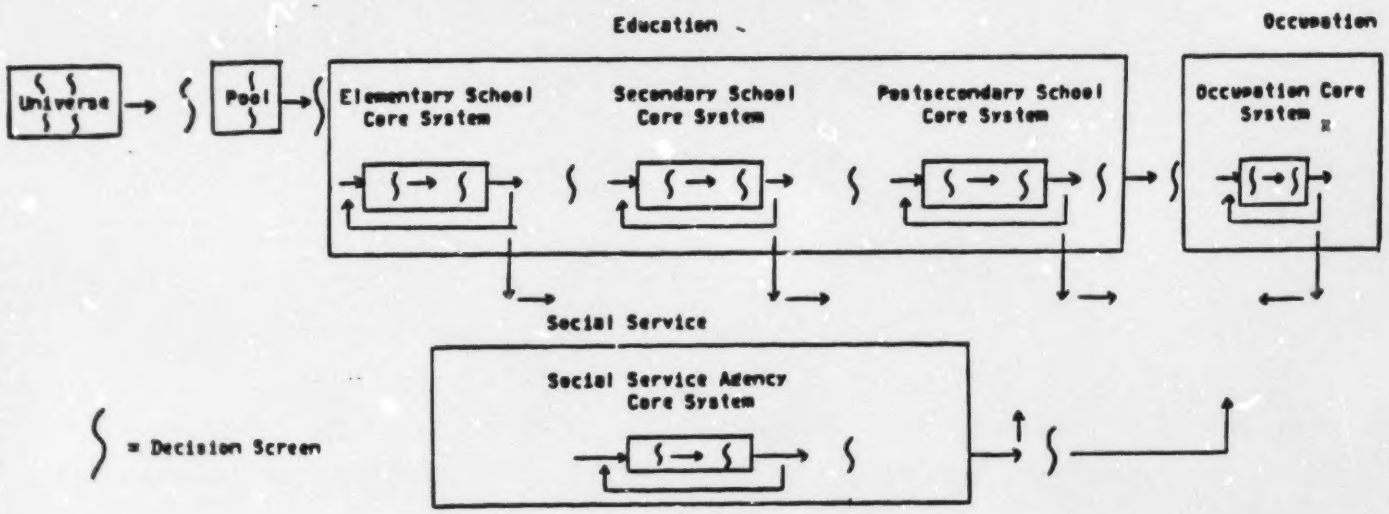
First, it assumes that the process by which education "flows" is continuous. While institutions appear to be autonomous entities along this time

dimension, the generation of data for planning comes best from a time perspective beginning before entry into that institution and extending, again for best planning, to a time well after the individuals leave the institution.

Second, it assumes that this time line has a deliberately interrupted continuity. While the movement of one individual through the process may appear to be continuous, the flow of a body of people show significant, sharp points at which their numbers, status or character changes abruptly. By some deliberate act of either the individuals themselves or by act of the college or university, there are points of marked change.

A third assumption is that at each of these points of alteration in the institution's cohort, there is a reduction which takes place. This is a simple idea illustrated by such ideas as: institutions usually have fewer graduates than admissions, fewer enrollees than applicants, etc.

Since this is a conceptual model, its illustration possibilities are many -- and, indeed, it has been drawn many different ways by people who have applied it to their own needs. One possible illustration follows:



At each reduction point there is a "decision screen." This is the decision pattern -- both individual and institutional -- which controls movement of the cohort through this point. These are the decisions which control the reduction -- the change in size or character of the group -- through the process.

At each of these decision screens a series of research questions can be formulated. While the specific questions may vary slightly from screen to screen, the pattern by which they are generated remains constant. That is, the question matrix is the same for all decision points. This permits easier formulation of needs assessment, research questions; it also aids in interpretation because the pattern of answers remains the same and one basic interpretation structure may be applied. This will become a bit clearer later as we take a look at the example application.

There are, then, four basic question categories at each screen:

1. the type of decision (deliberate reduction, selection, withdrawal, etc.),
2. the type of individual or group which exists in front of and subsequent to the screen,
3. the political, economic, and social circumstances which surround and impact the decision point, and
4. the individual and institutional effects of alternative outcomes of that decisioning.

As we will see in the example to follow, the teacher education needs assessment examined such questions as: What are the effects of institutional recruitment practices on the types of people who are attracted into teacher preparation programs? What effects do other economic opportunities have on the character of the applicant pool? What policy changes might alter the numbers or

types of people who are interested in teaching careers? And so on. Quite a different list of questions than would have been typical of an ordinary assessment which looked simply at quantification of the existing teacher corps, the loss rate and the current preparation rate.

Let's take a look at the example, then, to see how the question pattern applied to several decision screen points produced research questions and data for University System-wide planning use.

## METHOD AND PROCEDURES

The methodology and procedures of the statewide needs assessment including the area of teacher education, the focus of this section, were provided by the staff of the Board of Regents. Generally, all five subcommittees involved in the total statewide study:

- determined the planning assumptions for the area under study,
- collected data from existing state sources and acquired new information using a descriptive research approach,
- reviewed the information compiled to determine its accuracy and limitations,
- analyzed the information in terms of planning recommendations, and
- prepared a summary report which reflects the overall effort of the subcommittee.

Planning Assumptions for Teacher Education. The program analysis model used in this study allows a consistent approach to the development of planning assumptions and study design and interpretation. The assumptions developed by the teacher education subcommittee can be classified according to the model components: Universe, Pool, Curriculum and Job. These assumptions are an extension of the system planning assumptions and were developed in an effort to provide information concerning the current status and projected needs for programs preparing teachers.

### Universe

The economic growth of the state will permit a slight increase in state appropriations for education during the next five to ten years. However, inflation and other increased costs are likely to offset any real gain in financial support for education. Federal financial support for elementary and secondary schools will decrease during the next decade. Pressure from advisory groups (including citizens and professionals) will cause more stringent admission standards in teacher education.

Pool

During the next five to ten years public schools, colleges and universities will increase their efforts to attract and encourage academically superior students to the field of teaching.

Curriculum

Due to the lack of enrollment growth, the overall age of employed teachers will increase during the next ten years; thus faculty development and inservice training programs will become more important. The need for additional teachers in the elementary grades (K-8) will increase over the next five to ten years because of competency-based tests and other related requirements.

Job

The overall demand for adequately prepared teachers in Georgia, especially in such fields as mathematics and science, will continue to outweigh the actual number prepared in the state. Rural areas in the state of Georgia will experience a severe shortage of adequately prepared teachers, especially in such fields as mathematics and science, and special education. Increased enrollment and courses in the vocational and technical fields in secondary education will require more teachers in that area of specialty.

The number of persons certified to teach will continue to exceed those who actually join the work force as teachers.

The percentage of teachers recruited from states other than Georgia will increase during the next five to ten years.

The public school enrollment in Georgia will continue to experience a slight decline, but the percentage of decline will be less than the overall national decrease in enrollment.

Planning Assumptions and Limitations of this Study. Also, beyond the assumptions used for program planning, there existed additional assumptions of this study which defined the parameters of the value of this work. In some cases these assumptions allowed one to generalize the results of this study; in other instances, it is important to limit the use of this information particularly if decision-making is involved. The assumptions and limitations included the following:

Report. This report was a beginning planning effort, but the lack of data to support decisions is an important factor when planning for the future.

Data. Data have not been accumulated systematically over time or related to specific research questions.

Most of the data used in this report were collected prior to the needs assessment. It was necessary to rely upon a variety of studies and sources.

Occupations supply and demand data furnished by the Georgia Department of Labor is inadequate for long-term program decisions.

Census data (1980) were not available in such areas as educational attainment at the time this study was completed.

Time. This report reflected one point in time. Economic or political changes in the future may alter the recommendations of this study.

Model. Because of the limitations of this study, the model was presented in order to assist the state in developing a data base that would eventually develop a "blueprint" for teacher education.

Areas of Study. Areas of investigation necessary to have an understanding of teacher education trends in Georgia were the focus of this study. Information was collected related to the following questions:

(1) Is the number of high school graduates increasing or decreasing?

(2) Is the number enrolled in Georgia public and private colleges and universities increasing or decreasing?

(3) How many students are indicating teacher education majors as freshmen? (Most indicate education major after two years of study.)

(4) How many teacher education programs are there?

(5) Are teacher education enrollments increasing or decreasing?

(6) Is the number of undergraduates and graduates from teacher education programs increasing or decreasing?

(7) Are teacher education graduates entering other professions?

(8) How many people are certified in Georgia each year?

(9) How many certified teachers are trained in other states?

(10) How many certified teachers are teaching in Georgia?

(11) How many teachers certified in Georgia are teaching in other states?

(12) How many teachers are teaching out of field?

(13) How many teachers are teaching on provisional certification?

(14) How many teaching positions in the state are filled with new teachers?

(15) How many teachers leave classroom teaching each year?

(16) How many pass/fail Teacher Competency Tests/Teacher Performance Instrument and how do they score on Scholastic Aptitude Test/National Teacher Examination?

(17) How many teachers are involved in graduate study?

(18) How many teachers are involved in staff development?

(19) How many students are enrolled in K-12 public and private schools?

An identification of the 1980-81 figures for the nineteen questions was analyzed in terms of 1970-1975 information as well as 1985-1990 projections related to the same questions. Only with historical information and future projections can the status of teacher education be determined.

Method of Data Collection. Different methods were used in order to acquire pertinent information for use in the analytical model. A knowledge of the universe included information related to population and economic conditions and projections related to the future. This information was obtained primarily from reports of the 1980 Census and the Georgia Chamber of Commerce.

Information related to the pool of potential teacher education was obtained from reports of the Department of Education, surveys of colleges and universities and interviews with community leaders.

Curriculum information was obtained from reports of the Georgia Department of Education, surveys of colleges and universities and interviews with educators.

Job information was obtained from reports of the Georgia Department of Labor and the Georgia Department of Education.

Method of Information Reporting. Two approaches to reporting the teacher education information were planned in order to verify the accuracy of the information, simplify the reporting process, limit the length of this primary report, and maintain the raw data for future analysis. This primary report represents the most pertinent summary information; more than 20 short Working Papers supplement this report. The Working Papers include information related to geographical location, reporting years, individual colleges, certification type and characteristics of the teaching force.

The results and findings of this study were compared to regional and national information. The conclusions and recommendations of this study were interpreted within the studies available in the teacher education literature. By designing the report in this way, it was possible to agree or disagree with the information reported, the analysis, the conclusions or the recommendations.

Summary. This study was designed within the guidelines and timeline developed for the statewide needs assessment study. The theoretical model selected for use in the study was chosen because it simplified the reporting and analysis of much diverse information. The results of the study are reported in this primary report; however, more than twenty Working Papers include important and helpful specific information.

## FINDINGS OF THE STUDY

Nineteen questions provided the focus of this study. These questions were designed in an effort to determine the status of teacher education today as well as to provide information related to the number and characteristics of the teacher education student of tomorrow. Size and characteristics of the teacher education program were reviewed as were the characteristics and types of both certificates issued in Georgia and the people applying for the certificates. Quality measures related to both program graduates and certificate recipients were also important aspects of this study.

The Working Papers include the raw data accumulated from many sources were prepared to supplement these findings. The following results report the major points of each working paper and are numbered to correlate with the corresponding question of the study and working paper.

(1) How many high school students graduated in 1981?

The number of high school graduates in Georgia has increased from 56,859 in 1970 to more than 62,963 in 1981. Most of the Area Planning and Development Commissions (APDC) have experienced an increase in the number of graduates from school year 1979-80 to school year 1980-81; however nine APDC have experienced decreased numbers of graduates over the last two school years.

(2) Has college enrollment increased in Georgia?
How does this compare to the region and the country?

Statewide total college enrollments from school year 1976 to 1981 have increased by 11,516 students. However, in five of the Area Planning and Development Commissions the enrollments for the eleven colleges included (1980 to 1981) had a total decrease of 1,361 students. The remaining Area Planning and Development Commissions had a total increase of 4,382 students.

The number of students enrolled in southern institutions of higher education has grown from just over half a million in 1950 to well over three million in 1980. The rate of growth in the South surpasses the growth rate of the United States, and enrollment in the South as a percent of the national enrollment moved up three percentage points. Enrollment in public institutions accounted for 59 percent of total enrollment nationally, 66 percent in the Southern region and Georgia in 1960; in 1980, the corresponding figures were 78 and 84 percent, respectively, indicating substantial expansion in the public sector of higher education. Nine of the 14 Southern Regional Education Board states surpassed the 1980 regional average in the percent of enrollment attending state institutions. Georgia was the only SREB state registering a decline (from 81 percent in 1970 to 76 percent in 1980).

During the decade from 1970 to 1980, part-time enrollment, enrollment of blacks and enrollment of women have increased in Georgia, in the South, and nationally.

(3) Is the number of freshman entering the University System increasing in Georgia? How does this compare regionally and nationally?

The total number of freshmen entering the University System of Georgia has increased from 1975 to 1981 by 1,356 students with an increase of 1,446 from 1980-81. A few colleges have experienced large increases in the number of entering freshmen in 1981, while two colleges experienced the largest decreases.

The American Council on Education has reviewed the population shifts and migration trends of 18 year olds enrolled in higher education and projects that the states most likely to lose freshman students between 1975 and 1985 are Arkansas, Connecticut, Illinois, Minnesota, New Jersey, New York, North Dakota, Ohio, and Pennsylvania. The states most likely to have more freshman students

during this period are Arizona, Colorado, Delaware, Florida, Idaho and Utah. The remaining states (including Georgia) will have relatively stable freshman enrollments.

(4) What kinds of teacher preparation programs are offered in Georgia?

Teacher education programs throughout Georgia range from an associate degree to a doctorate degree. The specific courses offered in these programs meet the requirements of the State Department of Education for teacher certification in Georgia.

The number and variety of degree programs in education have increased with the expansion of higher education in the nation, in the South and in Georgia. The 33 senior colleges and universities in Georgia which have approved programs in teacher education offer more than 1,000 different degree programs in teacher education. This includes programs at only the 4th (bachelors), 5th (masters), 6th (education specialist) and 7th (doctoral) year levels. In addition, there are more than 250 associate degree and certificate programs offered in teacher education by a number of institutions. Since 1971, 238 new doctoral programs have been added by Southern Regional Education Board states. Forty-nine of these have been in education and eleven of these programs have been added in Georgia.

The off-campus outreach classes offered in 1979 were quite numerous and mainly directed toward certification/recertification purposes. Other off-campus courses provided credit for a Masters of Education (5th year) or Education Specialist Degree (6th year). There were 14 colleges and universities that offered off-campus opportunities in 95 different counties. Approximately 1,200 classes were held with an estimated total of 11,700 students enrolled.

(5) What are the trends in the teacher preparation programs in Georgia?

The return rate for the survey involving Higher Education Institution Survey data was 70 percent (23 of 33 teacher education institutions responded). Much of the information supplied by the institutions was incomplete because of the manner in which data are collected at the institutional level. However, it was possible to determine enrollment and program trends. Out of the 23 institutions which returned the survey, a large number of programs had few enrollees and only eight colleges had overall enrollment increases in teacher education programs. The other 14 APDCs had decreased enrollments with 14 of the institutions reporting declining enrollments in teacher education programs.

(6) Are the numbers of undergraduates and graduates of teacher preparation programs increasing or decreasing?

a. Bachelor Degrees

Figures indicate that the number of graduates from teacher education undergraduate programs is decreasing statewide. Every Area Planning and Development Commission except one reflects a decrease in teacher education program graduates between the years 1976 and 1981. During these five years the graduates in teacher education dropped from 2,999 to 2,122--more than a 30 percent decrease in T-4 graduates according to the data supplied by the staff of the Postsecondary Education Committee. These data are based upon the Higher Education General Information Survey, Number 16.

From 1970-71 to 1979-80, the number of bachelor's degrees awarded in education in Georgia, the South and the United States decreased sharply. Georgia experienced a 27.6 percent decrease, the Southern Regional Education Board states

experienced an 18.1 percent decrease and bachelor's degrees awarded in education dropped from 177,638 to 120,680 nationally, a 32.1 percent decrease.

b. Advanced Degrees

Teacher education advanced degree program graduates in Georgia have decreased sharply since 1975. During those five years, graduates have decreased more than 25 percent from 4,731 to 3,114. Only two Area Planning and Development Commissions increased the number of graduates from advanced degree programs in teacher education and these increases were minimal (2 and 16 percent respectively). Five Area Planning and Development Commissions registered a major decrease in graduates from graduate programs in teacher education.

(7) Are teacher education program graduates entering other professions?

More than ten percent of the June, 1981, teacher education program graduates who returned their follow-up questionnaire were employed outside the teaching field in November, 1981. (Military service and homemaker categories not included.) Occupational follow-up of 1,574 graduates (out of 2,162-73%) found that 166 were employed in fields other than teaching.

(8) How many people are certified in Georgia each year?

a. Graduating Seniors

Since 1977, the number of teaching certificates awarded to graduating seniors have been declining. Although the data provided by the State Department of Education does not include all of the colleges, it is evident that the number of possible certified graduating seniors is decreasing statewide. Exceptions to

this are found in four APDCs, which are experiencing slight decreases and the Atlanta Regional which experienced a large increase from 1980 to 1981. Three areas registered over a 30 percent decrease in the number of certified graduating seniors.

b. Advanced Degrees

The number of teacher certificates awarded to graduates of advanced degree teacher education programs has decreased over the last five years in all but three of the APDCs. These three APDCs have experienced moderate growth in the number of teaching certificates awarded to graduates of their advanced degree teaching education programs. Although this information is incomplete, the trend is evident by the continuing annual decrease of certificates issued.

There are more than 250,000 active teaching certificates in the state of Georgia. More than 39 percent of these are in elementary education: Early Childhood K-4 , Middle Grades 4-8 and Elementary Grades 1-8. More than nine percent are in English and History with 16,227 certificates and 4,836 respectively. Social Sciences represent 5.6 percent or 12,986 certificates , while Health and Physical Education's 10,834 certificates represent almost five percent of the total number of certificates issued. Mathematics and Science represent more than seven percent with 7,902 and 6,259 certificates. Biology, Physics, and Chemistry (4,313) represent almost two percent of the total. The Special Education certificates include: Interrelated Teacher Special/Early Childhood (151), Visually Handicapped (199), Teacher-Visually Impaired (92), Physically Handicapped (111), Learning Disability (2,736), Behavior Disorder (1,998), Hearing Impaired (734), Interrelated Teacher Specialist/Special Education (2,229), Multi-handicapped (137), and Mentally Retarded (5,143) and

account for less than six percent of the total certificates. Recently (April, 1982), the State Department of Education decreased the number of actively teaching certificates from 122 to 82 (Professional Standards Commission).

(9) Is Georgia employing teachers from out-of-state?

The number of teachers employed in Georgia in 1982 who qualified for Georgia teaching certificates with out-of-state education programs in 9,309. These teachers represent nearly 18 percent of the active teaching force in Georgia. This number is probably an understatement since many teachers from out-of-state will take courses or gain advanced degrees in Georgia educational institutions to become certified.

(10) How many regular teaching certificates are issued in Georgia?

The number of educational personnel funded by the Adequate Program for Education in Georgia was 56,738 and this number decreased by 831 educators from school year 1980-81 to 1981-82. The 56,738 actively employed teachers hold more than 98,000 Georgia teaching certificates.

The data related to actively employed teachers also come from Adequate Program for Education in Georgia Annual Financial Summaries but do not include administrators, counselors, and non-teaching personnel. The number of teachers actively employed in Georgia school systems decreased 244 from school year 1979-80 to 1980-81.

Population projections indicate that the number of elementary school teachers teaching in Georgia will decrease each year for two more years, and then beginning about 1984 additional teachers will be needed for the projected increase in the number of elementary school students. The number of secondary school teachers employed will decline each year throughout the 1980's.

Annual increases in the number of teaching positions over the previous years are likely in the elementary grades beginning about 1984; in the secondary grades, about 1990. (2)

The number of regular teaching certificates issued in Georgia increased (17,471) from fiscal year 1978 to fiscal year 1981. This increase was evident for four-year, five-year, six-year and seven-year certificates. However, in fiscal year 1982, the number of four-year and five-year certificates issued decreased 1,250 while the number of six-year and seven-year certificates increased 1,266.

(11) How many teachers prepared in Georgia teach out-of-state?

Only 63 (approximately 4 percent) of the 1,551 teacher education program graduates of school year 1980-81 who were followed-up, were found to be teaching out-of-state in November, 1981.

(12) How many teachers are teaching out of field?

Unfortunately, the data concerning Probationary Accelerated certificates were only available for one year. These certificates are granted for one year to individuals who hold a Georgia teaching certificate (have met education requirements), but not in the field in which they are teaching. This certificate gives them in-field status and expires after one year.

There were 2,577 active Probationary Accelerated Certificates issued in 1981. The majority of these were in science, mathematics, interrelated special education, learning disabilities, behavior disorders, mental retardation, early childhood education and middle grades.

Across the nation, a shortage in particular fields (i.e., mathematics and science) causes unqualified science and math teachers to be employed. In

school year 1980-81, 45 percent of the newly employed mathematics and science teachers were unqualified; in school year 1981-82, 50 percent of the newly employed mathematics and science teachers were unqualified.

(13) Is the number of provisional certificates increasing or decreasing?

The number of provisonal teaching certificates issued in 1982 was four times greater than the number of provisional certificates issued in 1978. Provisional certificates increased from 2,812 in 1981 to 4,000 in 1982. Much of this increase is due to the certification requirement of passing the Teacher Certification Test (TCT) and the Teacher Performance Assessment Instrument (TPAI).

(14) Are there teachers to fill the vacancies in Georgia public schools?

In the summer of 1979, Georgia reported what appeared to be a serious teacher shortage, with 9,000 vacancies projected for the fall and less than 3,000 new teachers graduated that year. But by September 1979, this vacancy total had dropped to less than 500. Fewer teachers chose to leave the profession and many teachers from Alabama, North Carolina, California and the Midwest sought and found jobs in Georgia. In spite of Georgia's generally lower beginning salaries, the lack of jobs in other states and an intensive recruiting effort by the state helped to create a sizable in-migration.

In school year 1980-81, 6,339 teachers were hired who had not taught in Georgia public school systems the previous year. Of these 6,339 teachers, 2,478 (or 39 percent) were elementary teachers, 1,839 (or 29 percent) were secondary teachers, 307 (or almost five percent) were vocational teachers, 254 (or four percent) were kindergarten teachers, and 1,244 (or 19 percent) were special education teachers. The remaining 223 (or 3.5 percent) of these teachers were

instructional specialists in art, music and physical education, psychological education center directors, and GLRS center directors.

The number of teaching positions opened annually in the United States through attrition has been between six and nine percent of the staff in grades K-12. However, re-entry of experienced teachers has normally reduced the net loss to four or five percent of K-12 teachers. Barring a significant further reduction in these attrition rates, the enrollment declines in most school systems should not require the forced separation of K-12 teachers (some positions opened by attrition simply would not be filled).

(15) How many teachers leave classroom teaching each year?

Between school year 1980-81 and school year 1981-82, 6,486 teachers left teaching in the state of Georgia's public school systems. Of these teachers, 2,754 or 43 percent were elementary teachers; 2,004 or 30 percent were secondary teachers; 325 or 5 percent were vocational teacher; 220 or 3 percent were kindergarten teachers (most left combination kindergartens of handicapped and non-handicapped students); and 1,22 or 18 percent were special education teachers. The remaining 82 or 1 percent consisted of audiologists, psycho-education center directors, GLRS center directors, superintendents and CESA directors.

(16) How many pass/fail Teacher Certification Test/Teacher Performance Assessment Instrument and how do they score on Scholastic Aptitude Test/ National Teacher Exam?

a. National Teacher Exam (NTE)

The mean scores of University System of Georgia education graduates on the National Teacher Examinations Common Exam had decreased as much as fifteen

points from 573 in 1973 to 558 in school year 1980. However, the University System education graduates NTE common test average increased from 558 to 566 in 1981.

Some states require a minimum score on the National Teacher Exam prior to certification. Minimum scores on the National Teacher Exam Common Exam required before certification for teaching in several Southern states range from 432 in Mississippi to 534 in Louisiana.

b. Scholastic Aptitude Test (SAT)

Scholastic Aptitude Test total scores for University System education graduates declined from 852 in 1975 to 822 in 1980. However, SAT total scores increased by eight points for University System education graduates in 1981.

Combined scores on the Scholastc Aptitude Test have dropped steadily since 1969. The trend of Scholastic Aptitude Test (SAT) scores in the south has paralleled the declines nationally; at the same time, average SAT scores in the South have been consistently lower than the national scores. College-bound graduating seniors planning to major in education generally score below all college-bound seniors (34 points below average in verbal and 43 points below average in mathematics in 1976) on the Scholastic Aptitude Test.

c. Teacher Certification Test (TCT)

Since the initiation of the Teacher Certification Testing Program in Georgia in 1978, 10,557 individuals or 86 percent of those 12,278 teachers who took the test passed. Seventy-nine percent or 9,695 passed the test on the initial take.

d. Teacher Performance Assessment Instrument (TPAI)

Teacher Performance Assessment for Fall, 1980 and Spring, 1981 included 1,493 teachers; of these, 853 or 57.1 percent mastered all 14 competencies. Of these 853 competent teachers, 583 or 68.3 percent were from in-state teacher education programs and 270 or 31.7 percent were from out-of-state teacher education programs. Besides these 853 competent teachers assessed, 387 others mastered between 11 and 13 of the 14 competencies.

Another 162 or 10.8 percent mastered 7-10 of the competencies. Thirty-seven percent of all beginning teachers who were assessed were from out-of-state.

(17) How many teachers are involved in graduate study?

The responses to this survey question were not sufficient to provide accurate data about the number of teachers involved in graduate study.

(18) How many teachers are involved in staff development?

The responses to this survey question were not sufficient to provide accurate data about the number of teachers involved in staff development.

(19) How many students are enrolled in K-12 public and private schools in Georgia?

a. Public School Enrollment

The number of students enrolled in grades K-12 in public school systems in the state of Georgia has been declining since 1970. Public school enrollment has dropped from 1,095,553 in school year 1969-70 to 987,476 in school year 1980-81. The enrollment decreased by 13,542 students between school year 1979-80 and 1980-81.

b. Private School Enrollment

The number of Georgia non-public schools has increased from 319 in November, 1971 to 501 in November, 1981. Enrollments at these non-public schools have also increased from 76,903 in school year 1971-72 to 93,330 in 1981-82.

The United States Bureau of the Census reports that the numbers enrolled in private schools and colleges (kindergarten through graduate school) represent a higher proportion (12.4 percent) of total enrollments in Fall, 1979 than they did between 1971 and 1976. The National Center for Education Statistics (NCES) reports that the proportion of K-12 students attending private schools declined from 11.4 percent in Fall, 1968 to 10.5 percent in Fall, 1978 and will rise to 12.5 percent by Fall, 1988.

## Summary of Findings

A summary of the findings is included in Table 1. The table describes the findings in Georgia as well as appropriate regional and national information.

Table I

Comparison of Findings in Georgia to Regional and National Information

| Georgia Findings | Regional and National Comparisons |
|---|---|
| (1) Number of high school graduates increased since 1970. | Supported regionally and nationally |
| (2) Number of college students in Georgia increased from 1976-1981. | Supported regionally and nationally |
| (3) Number of college freshmen increased from 1976-1981. | Supported regionally and nationally |
| (4) The number of teacher education programs have increased from 1970-1981. | Supported regionally and nationally-decreased 1980-1981. |
| (5) Teacher education enrollments have decreased since 1970. | Supported regionally and nationally |
| (6) The number of graduates from undergraduate and advanced teacher education programs has decreased sharply from 1975-1981. | Supported regionally and nationally except in Alabama and South Carolina |
| (7) In November, 1981, 10 percent of teacher education graduates of of June, 1981, were employed outside of the field of education. | Supported nationally -- 11.5 percent employed outside of education. |
| (8) The number of regular teaching certificates (4-year, 5-year, 6-year, and 7-year) issued by the Georgia State Department of Education increased form 1978-1981. In 1982, the number of four and five-year certificates decreased while the six-year and seven-year certificate increased. | Not known |
| (9) Number of teachers employed in school year 1981-1982 who qualified for Georgia teaching certificates after completing out-of-state teacher education programs is 18 percent of the active teaching force. | Not known |

Table I
(continued)

| | Georgia Findings | Regional and National Comparisons |
|---|---|---|
| (10) | The number of teachers employed in Georgia public school systems funded by the State (APEG) decreased from school year 1979-1980 to school year 1980-1981. These 56,738 APEG employed teachers possess more than 98,000 Georgia teaching certificates. | Supported regionally and nationally (only Florida and Texas increasing) |
| (11) | Four percent of Georgia teacher education graduates (class of 1981) were found to be teaching out-of-state in November, 1981 | Supported regionally and nationally |
| (12) | There were 2,577 active Probationary Accelerated certificates issued in 1981 (giving in-full status). | Not known |
| (13) | Provisonal certificates increased from 2,813 in 1981 to 4,000 in 1982. This increase is due in part to the performance based certification requirements. | Not known |
| (14) | In school year 1981-1982, 6,339 new teachers who had not taught in Georgia public schools in 1980-1981 became Georgia public school teachers. | Supported regionally and nationally - many states have fewer than 5 percent each year |
| (15) | Between school year 1980-1981 and school year 1981-1982, 6,486 teachers left teaching in Georgia's public school system. | A smaller percentage left teaching regionally and nationally |

Table I
(continued)

| | Georgia Findings | Regional and National Comparisons |
|---|---|---|
| (16) | National Teacher Examination (NTE) common scores and Scholastic Aptitude Test (SAT) scores of University System of Georgia teacher education graduates decreased from 1975-1980. Both NTE and SAT scores of teacher education graduates increased in 1981. 83 percent of these teachers who took the TCT in Georgia passed and 57.1 percent of the teachers who were assessed using the TPAI mastered all 14 competencies in Fall of 1980 and Spring, 1981. | Supported regionally and nationally |
| (17) | How many teachers are involved in graduate study? | Information not presently available |
| (18) | How many teachers are involved in staff development? | Information not presently available |
| (19) | The number of public school students enrolled in grades K-12 has been declining since 1970. The number of non-public schools has increased from 319 in 1975 to 501 in 1981. Enrollment has also increased from 76,903 in 1975 to 93,330 in 1981. | Supported regionally and nationally |

## CONCLUSIONS

Total college enrollment in Georgia colleges was on the increase. This increase includes the fact that more women and minorities are pursuing higher education. College students today tend to be older and many are working, at least part-time. There is an increase in the number of students selecting private colleges nationally as well as in Georgia.

Though the enrollment data indicate increases in college enrollments, fewer students are entering teacher education programs. There is evidence to suggest top students are not choosing professional education as a career and the more talented women who in the past have provided much of the quality in teaching ranks of elementary and secondary education schools are electing to pursue careers outside teaching.

Despite the decrease in the number of students entering teacher education, data seem to indicate the number of teaching education programs continues to increase in public and private institutions. There are fewer students but more programs.

Due to this decrease in the number of students entering teacher education, competition among teacher training programs throughout the nation has become intense; Georgia is no exception. Outreach programs have developed, raising questions of quality, overlapping service areas and program duplication.

The quality of teacher preparation both at undergraduate and graduate levels is being questioned not only in Georgia but across the entire nation. Furthermore, teacher education programs are beginning to experience the realities of funding cutbacks and a depressed economy.

There are some promising new approaches to program delivery in the early stages of implementation. It remains to be seen if these new approaches--the cooperative doctoral program, for example--will provide solutions to the pressing concerns of leadership needs, program duplication and program quality.

Certification continues to be a much debated topic. There is concern about the number of categories of certification, the number of provisional certificates being issued and the large question of the relationship of the certification process in quality. The problem of increasing teacher vacancies reported each year appears to be managed through the influx of teachers from out-of-state, granting provisional certificates, and return to the profession of persons who have not been teaching, but who hold valid certificates.

The shortage of mathematics, science and special education teachers continues to be a serious problem. Data also indicate many talented teachers are leaving the profession to pursue other careers. The turnover rate appears particularly acute among T-4 teachers. Teacher burn-out, a continuing migration from public to private schools, and concerns about leadership, particularly at the beginning level, are major issues in Georgia and throughout the nation.

The difficulty in obtaining data for this study is a clear indication that a data management system must be established. Only through a cooperative effort involving the Board of Regents, the State Board of Education and, perhaps, some professional associations, will it be possible to devise an information system that will provide accurate data from which wise decisions can be made. Cooperation among these significant organizations must be established through a formal design.

Table II provides a more detailed list of conclusions and data sources.

Table II

Conclusion and Support Literature

| Conclusions | Supporting Literature |
|---|---|
| **Universe** | |
| Georgia high school graduation requirements in math and science are among the lowest in the Southeast (one unit in each). | National Association of Secondary School Principals--State Mandated Graduation Requirements reported in Issues in Higher Education, Southern Regional Education Board, #19, 1982. Preparing Students for College: The Need for Quality, Southern Regional Education Board, 1981. Working Paper 82-1. (See Appendix C) |
| Scholastic Aptitude Test scores have stabilized. | College Entrance Examination Board. Working Paper 82-16b. (See Appendix C) |
| Total college enrollments are increasing in Georgia. | Quarterly Enrollment Reports, University System Board of Regents. Working Paper 82-2. (See Appendix C) |
| An increase in women and blacks attending college is evident. | A Profile of Southern Postsecondary Education in the Mid-80's: Implications for Part-time Enrollment Trends in Issues in Higher Education #14 Southern Regional Education Board, 1979. Fact Book on Higher Education in the South--1981-1982, Southern Regional Education Board, National Center for Educational Statistics. Working paper 82-2. (See Appendix C) |
| College population tends to be older and working, at least part-time. | A Profile of Southern Postsecondary Education in the Mid-80's: Implications of Part-time Enrollment Trends in Issues in Higher Education #14-Southern Regional Education Board, 1979. |
| Interest in teacher education as a career is diminishing. | Teacher Attrition Study State of Georgia--Darden Research Corporation, 1981. Teacher Supply and Demand in Public Schools, 1980-81, National Education Association. |
| Fewer white males ages 18-21 years are attending college. | United States Department of Commerce, Bureau of the Census, Projections of Population by Age, Sex, and Race 1977-2050. Working Papers 82-3 and 82-11. |

Table II
(continued)

| Conclusions | Supporting Literature |
|---|---|
| Pool | |
| A growing number of students are selecting private colleges in Georgia. | Fact Book on Higher Education in the South, 1981 and 1982, Southern Regional Education Board. Georgia State Department of Education. U.S. Bureau of Census in National Education Association's Research Memo: Population Trends and Their Implications for Association Planning, 1981. |
| Fewer students are entering teacher education programs in Georgia. | Survey of Higher Education Institutions. Working Paper 82-5. |
| Top students are not choosing education careers, women less frequently, men rarely. | Weaver, W.T. "In Search of Quality: The Need for Talent in Teaching." Phi Delta Kappan, September 1979. Working Papers 82-16 and 82-16b. |
| Test scores of seniors choosing education and graduates of teacher education programs have slightly decreased. | Weaver, W.T. "In Search of Quality: The Need for Talent in Teaching." Phi Delta Kappan, September 1979. Schlechty, P.C. and Vance, U.S. "Do Academically able Teachers Leave Education? The North Carolina Case." Phi Delta Kappan, October 1981. Working Papers 82-16, 16b, 16c, and 16d. |
| Fewer individuals are interested in teaching math and science. | American Association of Colleges for Teacher Education Briefs, 3(4), April 1982. Johnston, H.D. Recommendation for Improving the Quality of Teaching: A Report Submitted to the Board of Regents Task Force on Teacher Education. Working Papers 82-7. |
| Pool for graduate education students will decrease-have already trained teachers. | A Staff Study of the Education Specialist Degree University System of Georgia, June 1980. Population Trends and Their Implications for Association Planning 1981-National Education Association Research Memo. Working Papers 82-6 and 82-8c. |

Table II
(continued)

| Conclusions | Supporting Literature |
|---|---|
| Curriculum-Instruction | |
| Quality of teacher education curriculum remains questionable. | Johnston, H.D. Recommendations for Improving the Quality of Teaching. The Need for Quality: Recommendations of the Task Force on Higher Education and the Schools--Southern Regional Education Board, 1981. Yager, S.J. and Joyce, B.R. "Beyond the data: Reconstructing Teacher Education." Journal of Teacher Education, 28(6) November/December, 1977. |
| Teacher education programs are increasing in number. | Fact Book on Higher Education in the South 1981 and 1982--Southern Regional Education Board. Working Paper 82-4. |
| Fewer students are enrolled in many programs. | Report on program to be released in 1983. |
| There are fewer education graduates especially in undergraduate programs. | Earned Degrees Conferred--National Center for Education Statistics. Working Paper 82-6. |
| A large number of courses are being offered through outreach/off-campus programs. | Off-campus Degree Programs in the State of Georgia--Georgia Professional Standards Commission. Working paper 82-4. |
| Need for retraining educational leaders is apparent. | Leadership Academy Update: Reactions and New Directions--South Carolina Administration Leadership Academy. America's Most Important Managers--Educational Manager, 1(1), June 1982. Teacher Attrition Study, State of Georgia, Darden Research Corporation, 1981. |
| Evidence exists of multiplicity of programs in service areas (i.e., Atlanta, Southwest Georgia). | The Need for Quality--Southern Regional Education Board Task Force on Higher Education in the Schools, June 1981. The Bridge to a More Successful Future, Governor's Committee on Postsecondary Education, October 1981. A Staff Study of Specialist Degree--Office of Planning, University System of Georgia Working Paper 82-4. |

Table II
(continued)

| Conclusions | Supporting Literature |
|---|---|
| **Certification** | |
| Number of certification categories is being reduced in Georgia. | Georgia State Department of Education. Working Paper 82-8c. |
| State Department of Education is being criticized due to too many provisional certificate approvals, too much red tape. | Teacher Attrition Study, State of Georgia, Darden Research Corporation, 1981. |
| Concern is growing about relationship of certification requirements to improved teaching. | The Changing Labor Market for Teachers in the South, Southern Regional Education Board. |
| Concerns exist relative to relationship between levels of certification and pay; specifically called to question of quality. | The Changing Labor Market for Teachers in the South-Southern Regional Education Board. |
| Large number of out-of-state teachers are being certified to teach in Georgia. | Georgia State Department of Education. Working Papers 82-9 and 82-16d. |
| Out-of-state teachers usually have advanced degrees. | Georgia State Department of Education. Working Papers 82-6b and 82-13. |
| Number of individuals seeking certification from out-of-state will continue to grow. | Georgia State Department of Education, Trends in Teacher Supply and Demand, National Education Association. Working Papers 82-7, 82-9, 82-10C and 82-16b. |
| There is tremendous competition for students among the units in the University System, particularly intense in the Atlanta region as well as Southeast and Southwest Georgia. | Educating Georgia's People: Investment in the Future-Governor's Commission to Improve Education, 1974. A Staff Study of the Educational Specialist Degree Interim Report, Office of Planning, University System of Georgia, June, 1980. Working Paper 82-4. |
| Need continues for outreach programs in rural areas of Georgia. | Off-campus Degree Programs in the State of Georgia, January 1980-Georgia Professional Standards Commission. Working Paper 82-4. |

Table II
(continued)

| Conclusions | Supporting Literature |
|---|---|
| **Employment** | |
| Many capable teachers are leaving teaching for better working conditions and higher pay. | Gess Report, Teacher Attrition Study, State of Georgia-Darden Research Report. Teacher Supply and Demand in Public Schools 1980-81, National Education Association Research Memo. Working Paper 82-14. |
| Shortage of math, science, special education and vocational education teachers is particularly evident. | Georgia State Department of Education. Teacher Supply and Demand in Public Schools 1980-81, National Education Association. The Need for Quality, Southern Regional Education Board. |
| An increasing number of individuals are teaching on provisional certificates. | Georgia State Department of Education. Working Paper 82-13. |
| Leadership has become a serious concern, particularly at level of building principal. | Teacher Attrition Study, State of Georgia, Darden Research Corporation. |
| Migration to private schools is continuing to increase. | Georgia State Department of Education unofficial report on non-public school enrollments. U.S. Bureau of Census-National Center for Education Statistics. Fact Book on Higher Education in the South 1981 and 1982-Southern Regional Education Board. |
| Turnover is particularly heavy among T-4, less experienced teachers and special education teachers. | Gess Report-unofficial report for the Governor on Teacher Attrition in Georgia 1979-80. Working Papers 82-9 and 82-14. |
| Teacher burn-out and general school environmental concerns continue. | Teacher Attrition: Study of State of Georgia, Darden Research Corporation. Teacher Satisfaction in Georgia and the Nation, Georgia and the Nation, Georgia Professional Standards Commission. |
| Decrease in teacher education graduates from Georgia colleges continues as potential employees to meet anticipated teacher shortages may be met with former teachers reentering the field and the inmigration from other states. | Teacher Supply and Demand, National Education Association Research Memo 1981. Comparing Georgia Teacher Education graduates certified in Teacher Education (Working Paper 82-10c) and the Number of Certificates Issued in 1978-1981 (Working Papers 82-8 and 82-8b). Also Working Papers 82-14 and 82-16. |

Table II
(continued)

| Conclusions | Supporting Literature |
|---|---|
| **Employment** | |
| An increased need for elementary teachers after 1984 will be balanced by the decreased need for secondary techers in the 80's except in special fields (i.e., math and science, special and vocational education). | Teacher Supply and Demand, National Education Association Research Memo, 1981. |
| Shortages in rural areas in many teaching categories; acute in math, science, and special education. | Georgia State Department of Education. Teacher Supply and Demand in Public Schools 1980-81. National Education Association. The Need for Quality, Southern Regional Education Board. Working Paper 82-14. |

## ISSUES AND RECOMMENDATIONS

The data, information and literature reviewed in this study were related to the characteristics and major changes in the college population, the pool of students from whom educators are selected, the curricular and instructional aspects of teacher preparation, and certification and employment of teacher education graduates. All of this specific information was analyzed and discussed by the teacher education subcommittee of the Statewide Needs Assessment staff. The teacher education subcommittee concluded that in order to initiate policies which might significantly improve the quality of teacher education in Georgia, the following recommendations should be made, regardless of their sensitivity. Each recommendation is presented following a brief description of the issue. The issues reported were determined to be of particular importance to the improvement of quality teacher education in Georgia. In an effort to highlight changes needed related to data collection, program service areas, program competition, program content and practices, staff development, and cooperation between governing boards, the subcommittee offers these seven recommendations.

### Accurate and Comprehensive Data Source

This study attempted to examine a series of questions related to the relationship of teacher preparation programs to community need. In fulfilling this purpose, the study was only partially successful. One major reason for this is the significant lack of substantive data related to the recruitment, preparation, certification, selection, quality and employment of teachers. At this time there is no place the profession can go to understand teacher education, its quality or current strengths or weaknesses. Without a better understanding of these aspects of teacher preparation, it is impossible to have decisions designed to improve teacher preparation.

Program Service Areas

There is information to suggest (both in this study and reported by others) that most of the state has adequate accessibility to undergraduate teacher preparation programs. Most of the graduate needs are being met by the public institutions, either through local offerings or cooperative programs, such as the cooperative doctoral programs. There are isolated and rural areas which would benefit from more cooperative efforts at the graduate level.

Program Service Competition

The metropolitan area of Atlanta is served by a large number of public and private teacher preparation programs. Competition for students is keen. If care and coordination are not provided, the competition may have detrimental effects on program admission standards, class scheduling, instructor qualifications and ultimately course content.

Program Content and Practices

The tremendous growth of Colleges of Education during the late sixties and seventies occurred during a time when education, like many public and social services, was held in high public esteem. Service to others was an honorable reward for hard classroom work. Today pressures such as the search for higher salaries, decreased esteem for public service, and the flight of women into business have challenged the profession itself.

Professionals argue that the public perception of educators must be improved: "We must raise the quality of students in teacher preparation programs." "Raise the Scholastic Aptitude Test score for admission!" "Interview each candidate!" Class rank, grade point average, motivation, and commitment, are

all important characteristics of the new teacher. All of this is true. Yet how can colleges and universities demand the best students when Georgia offers low salaries and (according to some studies) a teaching environment that does not recognize high quality teachers? This state has one of the best screening certificaion programs and some of its colleges and universities produce high quality graduates, yet the issues associated with program content and practices are significant.

## Staff Development

Teacher renewal and improvement in Georgia is usually done through staff development work. Although there is not adequate data available describing the extent and type of staff development being conducted, it is important to strengthen the relationship between the resources at the training institution and the needs of the public schools. Because of the manner in which colleges and universities are funded in Georgia, little support can be given to the public school systems outside the usual credit offerings.

## Cooperation Between Governing Boards

Many findings, conclusions, and recommendations identified by this study suggest the increasing need for close cooperation between the State Board of Education and the Board of Regents of the University System of Georgia. The complex relationship between teacher preparation, certification, and employment supports this need. If Georgia children are to benefit from quality educators, then it is necessry for all to work for this goal.

Research and Public Service

Responding to community educational needs is related to college and university administrative flexibility, creativity, and knowledge. Local institutions and agencies are usually the first to anticipate areas of emerging teacher education need within a community. When the level of educational need is high, appropriate institutional response must be made quickly; if the institutions do not respond, then communities will seek other avenues of assistance. Public esteem for higher educational institutions will be the result of the system institutions rising to community needs and challenges.

Beyond a public service commitment, but related to the scope of services offered by system institutions, is the strength of the knowledge base of each individual institution. For institutions with large graduate student populations and offerings, the role of research is of great significance. The theoretical and conceputal basis for anticipating a highly technical future, a future with quality of education as a focus, requires institutions to be at the forefront of knowledge. The strength of teacher education tomorrow rests on the applied research conducted in Georgia today.

Summary

Public elementary and secondary education may need to be restructured. There should be differentiated personnel categories that would allow for professional advancement commensurate with performance and educational training. It would require additional funding, time, energy and cooperation to make this a reality. Pilot efforts should be developed and implemented through cooperative arrangements involving interested local school districts, the State Board of Education and the Board of Regents.

Colleges and universities should restructure their programs accordingly to provide the pedagogical, clinical and knowledge-based programs required to meet these different levels or categories.

Certification should be streamlined and redefined to accommodate both the training programs and the professional teaching categories.

If this coordinated effort could be initiated, it is anticipated that the teaching professions would attract many brighter college students. Effective classroom teachers would remain in the classroom because professional satisfaction would be achieved and rewards for performance would be recognized. It would sharpen the focus of teacher training programs and hopefully reduce the confusion of certification programs.

Steps can be taken in this direction only if there is a coordinated effort among the significant agencies such as the Board of Regents, and the State Board of Education, and all professional associations working on behalf of the profession.

## EPILOGUE

Three hundred years ago, John Comeinus argued that education must be universal, accessible, practical; it must produce mental, physical and moral well-being and be directed toward the general improvement of the individual and society as a whole. He stressed the importance of higher education but contended that to be admitted to higher education one must prove that he or she is "fit."

Teacher education must attract only those who are "fit." Program design must include the broad educational componenets of the liberal arts, the proven practices of effective pedagogy and the opportunity for rigouous, well-supervised clinical experiences. Program delivery must consider accessibility to the constituents. However, this must not evolve at the expense of quality. Licensure must be separate from preparation focused on performance in the classroom. The profession must be enhanced and made attractive through improving the work environment. New instructional patterns must evolve which stress different staffing conditions that allow for reward and encourage excellence in teaching. Salaries must be improved generally and specific means must be devised to differentiate salaries according to task and performance.

The importance of education to a society has been documented over the centuries. The factors related to the design and implementation of quality teacher preparation programs are well known. Yet why are these ideas so difficult to include in teacher education in Georgia? Coordinated and motivated leadership will be necessary if the state is to address the important issues and recommendations described in this report.

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